



Paul E. Helliker  
Director

# Department of Pesticide Regulation



Gray Davis  
Governor  
Winston H. Hickox  
Secretary, California  
Environmental  
Protection Agency

December 21, 2001

EM 01-02

TO: County Agricultural Commissioners

SUBJECT: CHEMIGATION INSPECTION FORM

Chemicals registered for application through irrigation systems (chemigation) are required by the U.S. Environmental Protection Agency to contain label language specifying equipment that must be present to protect water sources from backflow contamination. Follow-up inspections of recent ground water contamination incidents have indicated a range of problems from non-compliance with label language, to faulty devices. While some counties inspect chemigation sites for compliance if a restricted use pesticide is applied, inspections are generally not conducted for non-restricted use pesticides. Over 100 active ingredients and more than 300 separate product labels have been identified with a chemigation label, most of which are non-restricted use pesticides. In response to this issue, the Department of Pesticide Regulation has created a model focused activity, the Chemigation Compliance Evaluation Focused Activity (Focused Activity), that County Agricultural Commissioners can participate in to better identify chemigation sites and compliance in their counties.

Those counties participating in the Focused Activity are asked to provide information on chemigation compliance by using the enclosed Chemigation Inspection Form. Please gather information on this form regarding the use of backflow prevention when issuing permits to growers who will be using chemigation as a method of application, and when performing inspections of chemigation sites. The front portion of the form will assist you during grower interviews when gathering information regarding the use of backflow prevention equipment that is required by the label. The back portion provides further information that can be obtained during visual inspections. When a site inspection is made for chemigation, please fill in both the front and back portions of the form. This information will be used to guide further efforts to protect ground water when chemigation is used.

Please forward the completed forms to Ms. Joy Lyn Dias, Environmental Research Scientist, by fax at (916) 324-4088 or by mail at P.O. Box 4015, Sacramento, California 95812-4015. Counties not participating in the Focused Activity, but planning to conduct some chemigation inspections are encouraged to use the forms and forward them as well.

***FLEX YOUR POWER!*** *The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web site at <[www.cdpr.ca.gov](http://www.cdpr.ca.gov)>.*



County Agricultural Commissioners  
December 21, 2001  
Page 2

If you have any questions, please contact Ms. Dias, of my staff, at (916) 324-4183, or at <jdias@cdpr.ca.gov>.

Sincerely,

original signed by

John S. Sanders, Ph.D.  
Chief  
Environmental Monitoring Branch  
(916) 324-4100

Enclosure

cc: Ms. Joy Lyn Dias

bcc: Dias Surname File

## **CHEMIGATION: GROWER INTERVIEW AND SITE INSPECTION FORM**

Installation ID: \_\_\_\_\_

Owner Name: \_\_\_\_\_

Location: \_\_\_\_\_

Type of Irrigation System: \_\_\_\_\_

### **CHEMIGATION SYSTEM COMPONENTS CHECK LIST**

- A. Water Source:
- Farm Irrigation Well.....☐
  - Public Water Supply\* .....☐
  - Other .....☐
  - Describe: \_\_\_\_\_

- B. Chemigation System Location and Configuration:
- At Wellhead, Electric Motor Driven .....☐
  - At Wellhead, Engine Driven .....☐
  - Remote From Wellhead .....☐

- C. Required Irrigation System Components:

#### **1. BACKFLOW PREVENTER ASSEMBLY ON IRRIGATION PIPELINE**

- Check Valve ..... Single Valve ☐ Double Valve ☐
- Vacuum Relief Valve .....☐
- Low Pressure Drain .....☐
- Other .....☐
- Describe \_\_\_\_\_

#### **2. AUTOMATIC QUICK CLOSING CHECK VALVE on Pesticide Injection Line .....☐**

#### **3. NORMALLY CLOSED SOLENOID OPERATED VALVE**

- On Intake Side of Injection Pump .....☐
- Interlocked to Pump .....☐

##### **Approved Alternatives**

- Spring-loaded Check Valve with 10 psi Minimum Cracking Pressure.....☐
- Normally-closed Hydraulically Operated Check Valve .....☐
- Vacuum Relief Valve in Pesticide Pipeline.....☐

#### **4. SYSTEM INTERLOCK to Automatically Shut Off Pesticide Injection Pump**

- Electrical Interlock to Chemical Injection Pump .....☐
- Belt Drive Direct to Drive Shaft .....☐

#### **5. LOW PRESSURE SWITCH on Irrigation Line to Stop Irrigation Pump.....☐**

#### **6. CHEMICAL INJECTION DEVICE**

- Positive Displacement Injection Pump .....☐
- Other .....☐
- Describe \_\_\_\_\_

##### **Approved Alternative**

- Venturi Based Injection Device with Proper Check Valves .....☐

## CHEMIGATION: SITE INSPECTION FORM

D. Other

- Pesticide Tank ..... ☐  
Pesticide Tank Agitation  
    Required ..... ☐  
    Provided ..... ☐  
Period of Pesticide Application  
    Continuous ..... ☐  
    Periodic ..... ☐  
Mixing Instructions Provided ..... ☐  
    If no, explain \_\_\_\_\_  
Recommended Range of Irrigation Applications:  
    Minimum \_\_\_\_\_ in. per set/round  
    Maximum \_\_\_\_\_ in. per set/round

E. System Designer

- Property Owner/Operator ..... ☐  
Dealer ..... ☐  
Consultant ..... ☐  
Other ..... ☐  
Designer Name \_\_\_\_\_  
Date Installed \_\_\_\_\_  
Operator Name \_\_\_\_\_  
Title \_\_\_\_\_

F. Operational Inspection

*Note: Inspect for indications of satisfactory performance or indications of improper design or operation*

Evidence of chemical spill ..... Yes ☐ No ☐  
Explain \_\_\_\_\_

Evidence of piping materials deterioration ..... Yes ☐ No ☐  
Explain \_\_\_\_\_

Evidence of leakage ..... Yes ☐ No ☐  
Explain \_\_\_\_\_

Evidence of valve malfunction ..... Yes ☐ No ☐  
Explain \_\_\_\_\_

General condition of the site  
    Satisfactory ..... ☐  
    Unsatisfactory ..... ☐  
    Explain \_\_\_\_\_

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Inspected By

Date

\* The devices described do not necessarily conform to requirements for connections to public water ground water supplies; however this information is still valuable. If the answer to this question is "Yes," continue with the inspection, recording as much information as possible on the Field Inspection Form.